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(54) **MAGNETIC FIELD PLASMA CONFINEMENT FOR COMPACT FUSION POWER**

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(57) **ABSTRACT**

In one embodiment, a fusion reactor includes a plurality of internal magnetic coils suspended within an enclosure, one or more center magnetic coils coaxial with the plurality of internal magnetic coils, a plurality of encapsulating magnetic coils coaxial with the internal magnetic coils, and a plurality of mirror magnetic coils coaxial with the internal magnetic coils. The encapsulating magnetic coils maintain a magnetic wall that prevents plasma within the enclosure from expanding.